Little River WMA ***Compartment 12 Forest Prescription (Rx)***
June 2015

AREA DESCRIPTION

Little River Wildlife Management Area is located in eastern Grant Parish, along the west side of Little River. Compartment 12 is located in portions of sections 20, 21, 28, and 29 of T8N, R1E and bounded by Little Creek to the north, compartment 7 and 8 to the east, compartment 11 and private property to the south, and Camp Hartner Rd. and WMA boundary to the west. This compartment was recently, almost entirely, added due to additional lands being acquired by LDWF. The added tract consists mostly of managed pine that was previously owned by a forest industry company. The compartment contains 548 acres of mostly planted loblolly pine in the hills and a relatively small area of bottomland hardwood forest along a major creek bottom. Most of the topography of the compartment begins the terrace uplands with gently to moderately to strongly sloping well drained soil and broad ridges with small drains leading to minor tributaries of Little River.

CURRENT CONDITIONS

The forest structure of compartment 12 is made up of approximately: 400 acres (73%) of planted loblolly pine, 50 acres (9%) of pine/hardwood mix, 95 acres (17%) of Willow Oak - Overcup Oak/Bitter Pecan, and 5 acres (<1%) of Cypress/Tupelo forest types. Within the pine forest type there are multiple stands of varying age, development and structure where different harvest treatments of clear cuts and thinnings have been applied over diverse time intervals. Of the entire pine area of the compartment 55 acres in a separate stand was not treated in the most recent harvest entry cycle. This stand in the southern part of the compartment has a total basal area of 222 sq. ft. per acre with an average DBH of 8.3 inches and 569 trees per acre. Approximate pine timber volumes for this area are 1.7 MBF/ac of sawtimber, 47 cords/ac of chip-n-saw and 37 cords/ac of pulpwood. These over stocked stands have 95% - 100% canopy closure and limited (0-10%) midstory and understory component of shade-tolerant plant species. The remaining pine plantation stands within this compartment have had recent thinning treatments. The recently thinned stands have a basal area range from 70 - 80 sq. ft. per acre and approximately 150 – 180 trees per acre. The thinned pine stands have a moderate midstory and understory vegetative structure of desired species composition and abundance as a result of periodic (3 yr cycle) prescribed burning. As the burning regime continues the midstory develops to a more desirable habitat. The eastern side of the compartment contains 47acres of a mixed pine/upland hardwood component that appears to have developed in a more natural succession. This area does not show evidence of artificial regeneration planting and continued to mature outside of the previous more intensive pine management harvests. Prior to LDWF ownership none of the pine stands received prescribed fire. The bottomland hardwood area (Willow Oak/Overcup Oak/Bitter Pecan) is found along Little Creek and a minor drain. The Cypress/Tupelo forest area is part of a swamp depression in a southwest corner of the WMA.

Soils

The pine areas are mostly found in the terrace uplands on Glenmora silt loam, very gently sloping, moderately well drained soils on the broad ridges and side slopes along drainageways; Cadeville very fine sandy loam, moderately sloping to strongly sloping, moderately well drained soil on side slopes; and Caddo silt loam, level, poorly drained soil on broad flats. Most of these soils have moderately low fertility; runoff is medium and rapid on the sloped soils where the hazard of water erosion is moderate, and slow and standing in the low areas of the level, flat soils. These soils are well suited to woodland and a high potential for pine trees, site index for loblolly pine ranges from 80-95.

Wildlife

Desirable wildlife habitat is a primary objective of the forest management and structure on the WMA. Management decisions are based with consideration to important wildlife species that inhabit the WMA including white-tailed deer, squirrels, wild turkey, rabbits, and waterfowl. Other game and non-game species on the WMA include resident and migratory birds, small mammals, amphibians and reptiles. These species also have significant consideration. A developed midstory and ground level understory of desirable vegetative component and structure, as well as the forest canopy, are fundamental for the preferred wildlife habitat. A good diversity of forest structure, age and vegetation provide for some of the best wildlife habitat. Feral hogs are also found on the WMA however currently they do not create a major problem.

OBJECTIVES

- Increase midstory and understory structure and diversity where needed
- Improve tree health, vigor, and production
- Promote acceptable growing stock and quality trees in planted stands
- Reduce wildfire hazard and promote desirable vegetative component
- Maintain and promote quality wildlife habitat

Methods [activity/method used to accomplish objectives]

Intermediate Thinning (55 acres)

- Tree removal will be done using an operator selection method, cutting every fourth row of planted trees and thinning in between the cut rows
- Trees to be removed between the cut rows will be selected according to tree vigor, crown position, and form; remove trees in decline and of poor quality
- The amount of thinning removal will be based on a reduction of stocking equal to a basal area of 70 sq. ft. per acre

No Treatment Areas (395 acres)

- No management activity for this entry period
- Continue to monitor need for management activity before the next entry cycle of 20 years

Managed Pine (330 acres)

- Maintain a prescribed burning regime

Concerns

- Residual tree logging damage
- Erosion control in susceptible areas
- Road maintenance during logging activities
- Wildfire potential and fuel load

Treatments [how treatment will accomplish objectives]

An intermediate harvest using an improvement thinning will promote health, vigor and growth of the desired growing stock within the stands. While tree heights are good in these stands, tree removals based on spacing will allow for increased diameter growth in the residual trees. Currently the goal is for long-term sawtimber production with quality wildlife habitat. Thinned areas will also provide for more sunlight penetration in order to stimulate desirable vegetation growth underneath and improve wildlife habitat structure and diversity. Use of a continuous prescribed fire regime will further create and maintain desirable vegetation composition for quality wildlife habitat and minimized wildfire threat by reducing fuel loads.

Logging Requirements

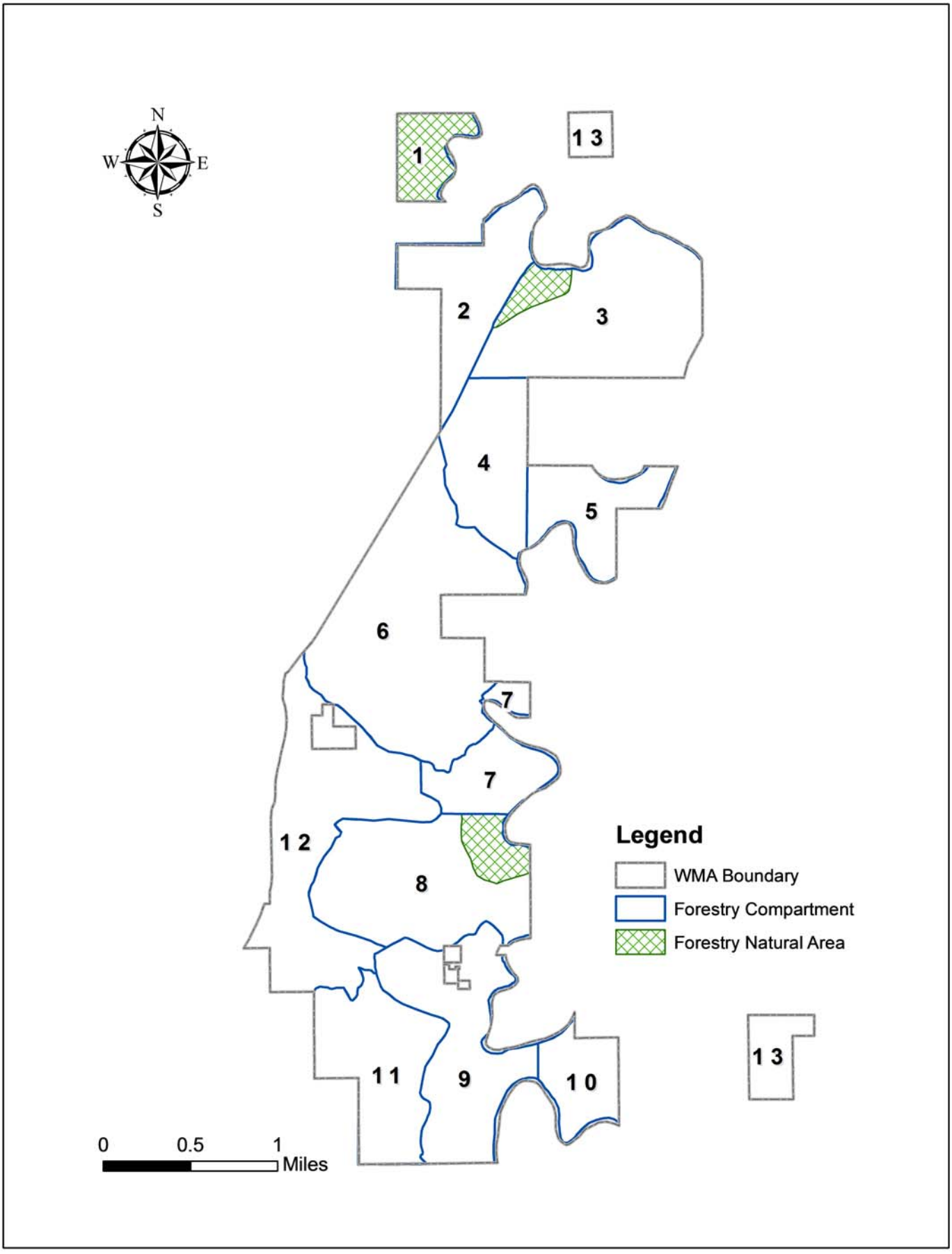
- No harvesting during wet periods
- Follow all BMP guidelines
- Minimize damage to residual trees
- No harvesting operations during deer firearms seasons or spring turkey seasons
- All logging slash near sets should be piled when set is abandoned
- Logging access will be designated by LDWF forester and WMA staff

ADDITIONAL ENTRY REQUIREMENTS

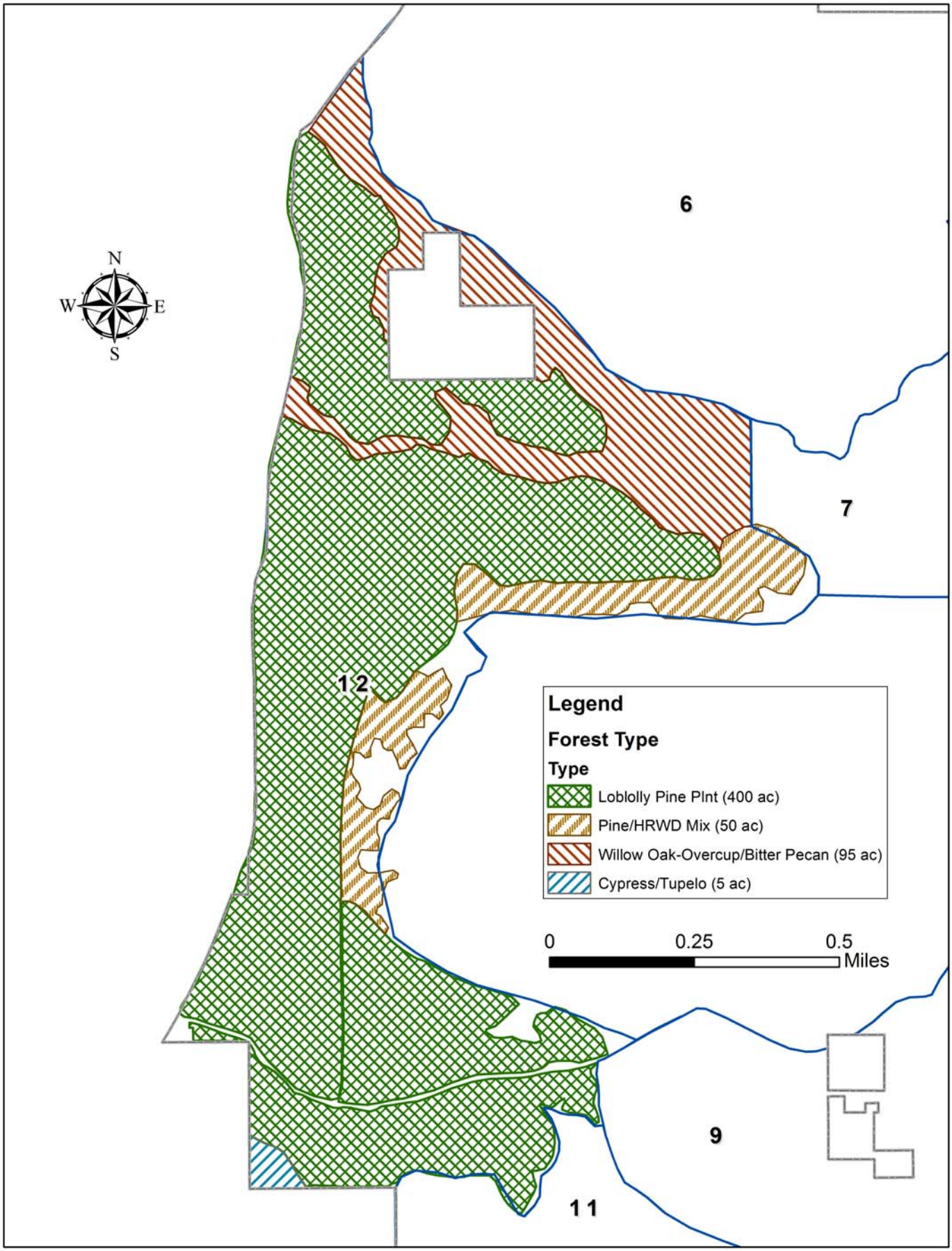
- Monitor areas where no treatment for possible future needs or opportunities before the next entry cycle

[*Attachements- WMA, Stand, Treatment Maps*]

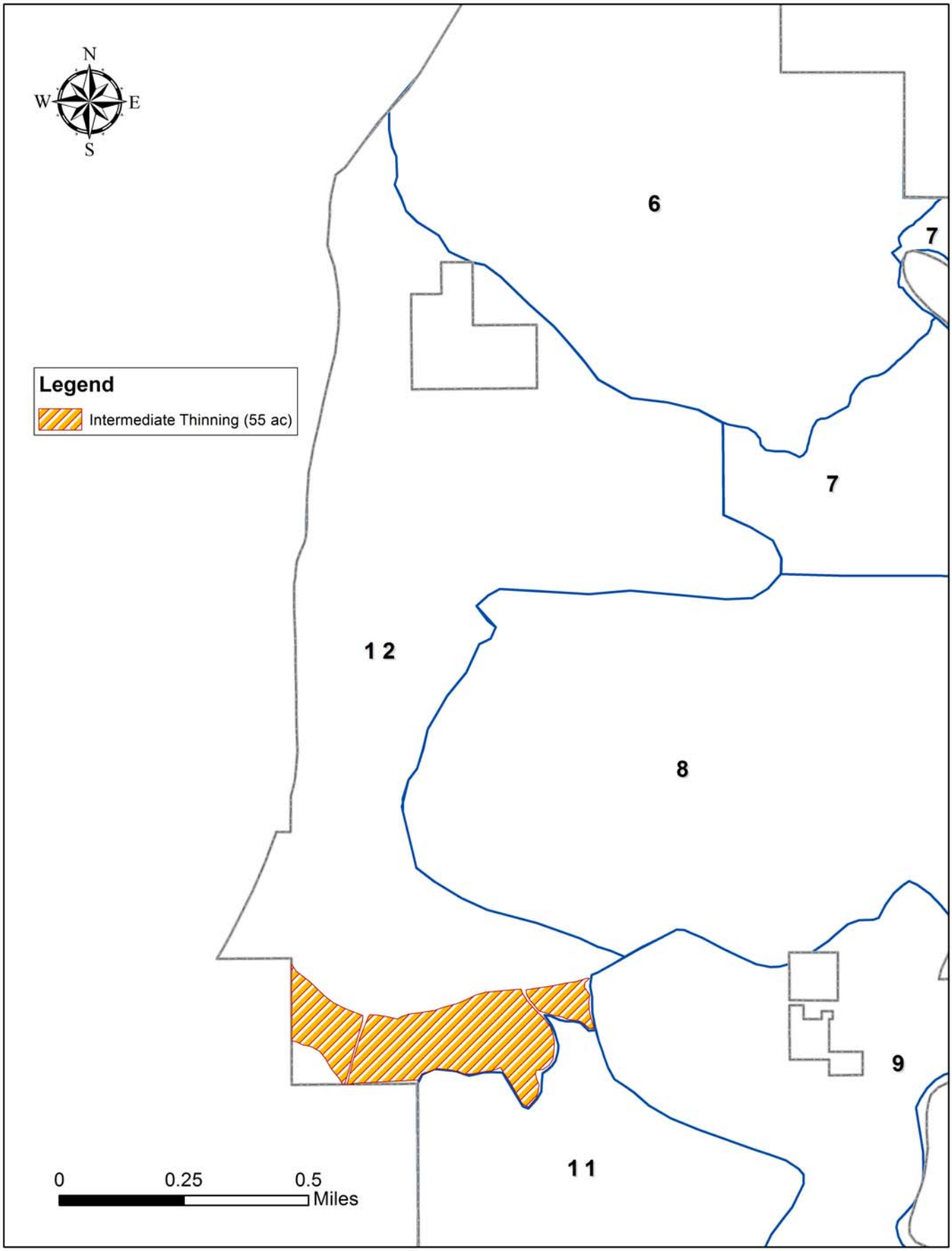
Little River WMA Forestry Compartments and Natural Area



LRWMA Compartment 12 Forest Type



LRWMA Compartment 12 Proposed Treatments



Little River WMA Past Treatments